

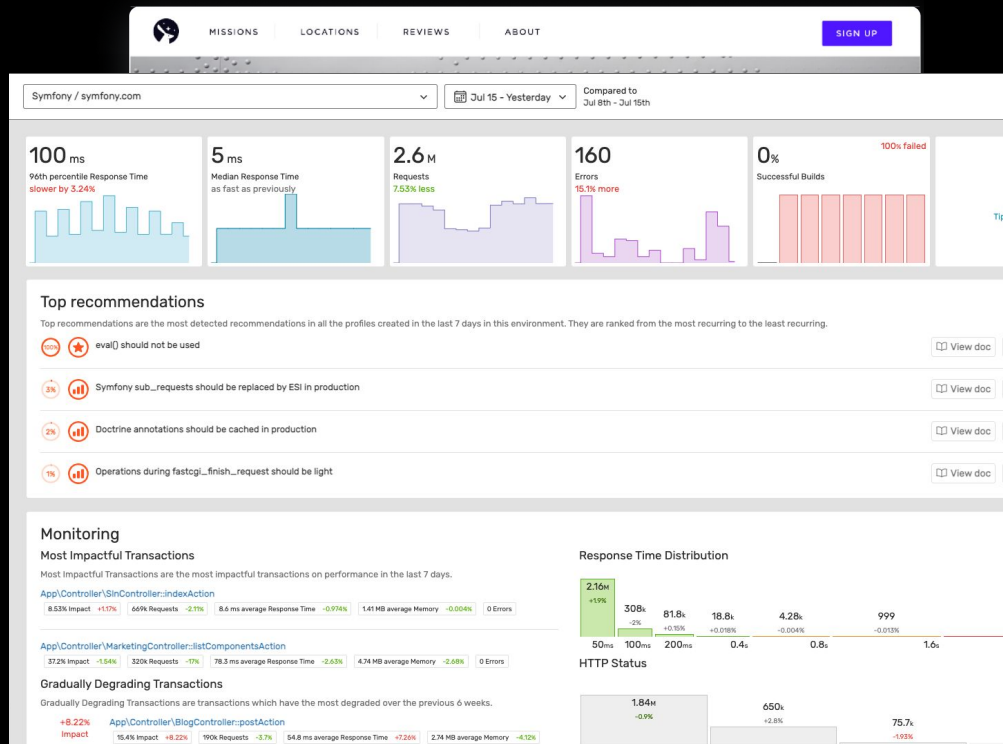


# Observability tools: who's who?

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# Observability?

**Observability is a measure of how well internal states of a system can be inferred from knowledge of its external outputs**

<https://en.wikipedia.org/wiki/Observability>

# Observability?

Observability is a measure of how well **internal states** of a **system** can be inferred from knowledge of its **external outputs**

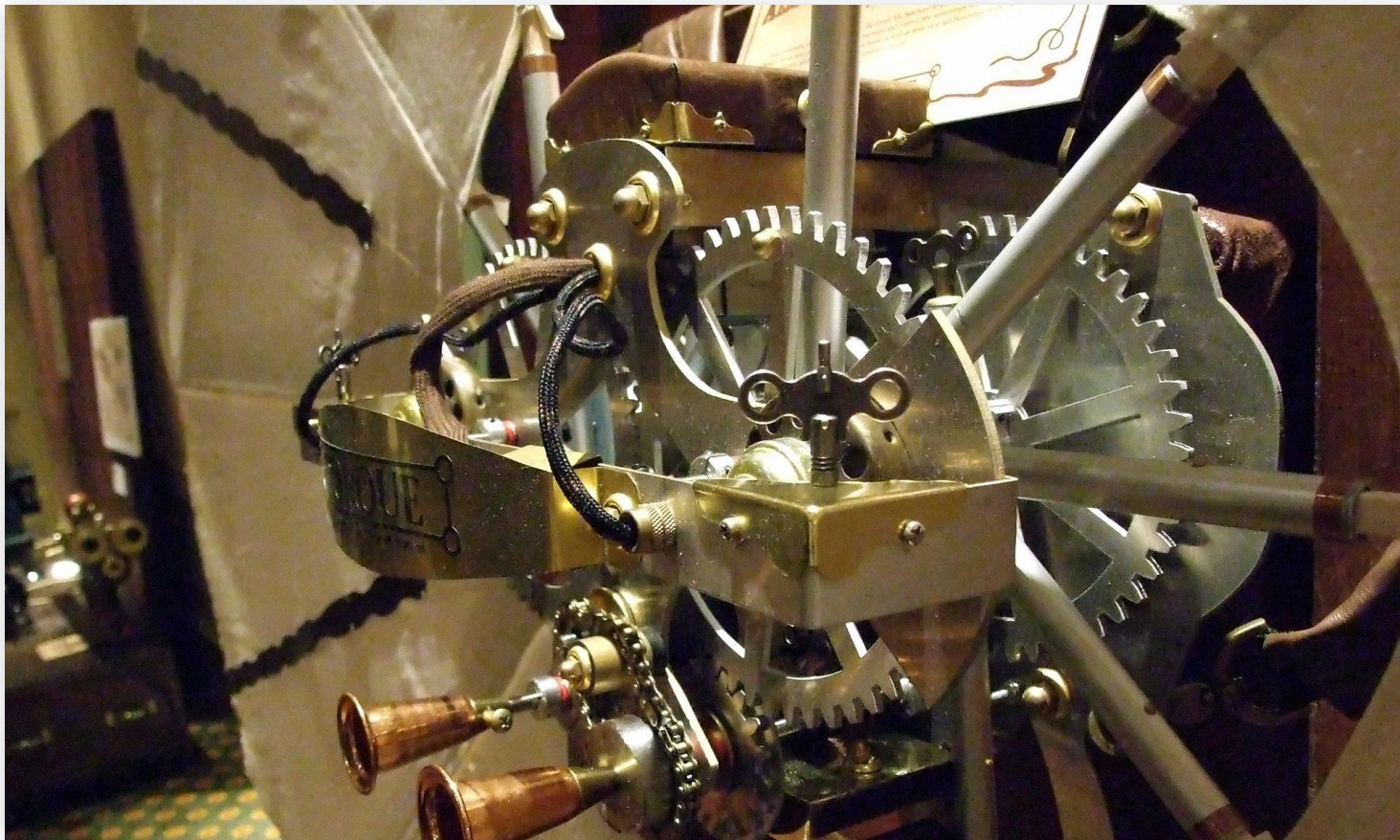
<https://en.wikipedia.org/wiki/Observability>

# System

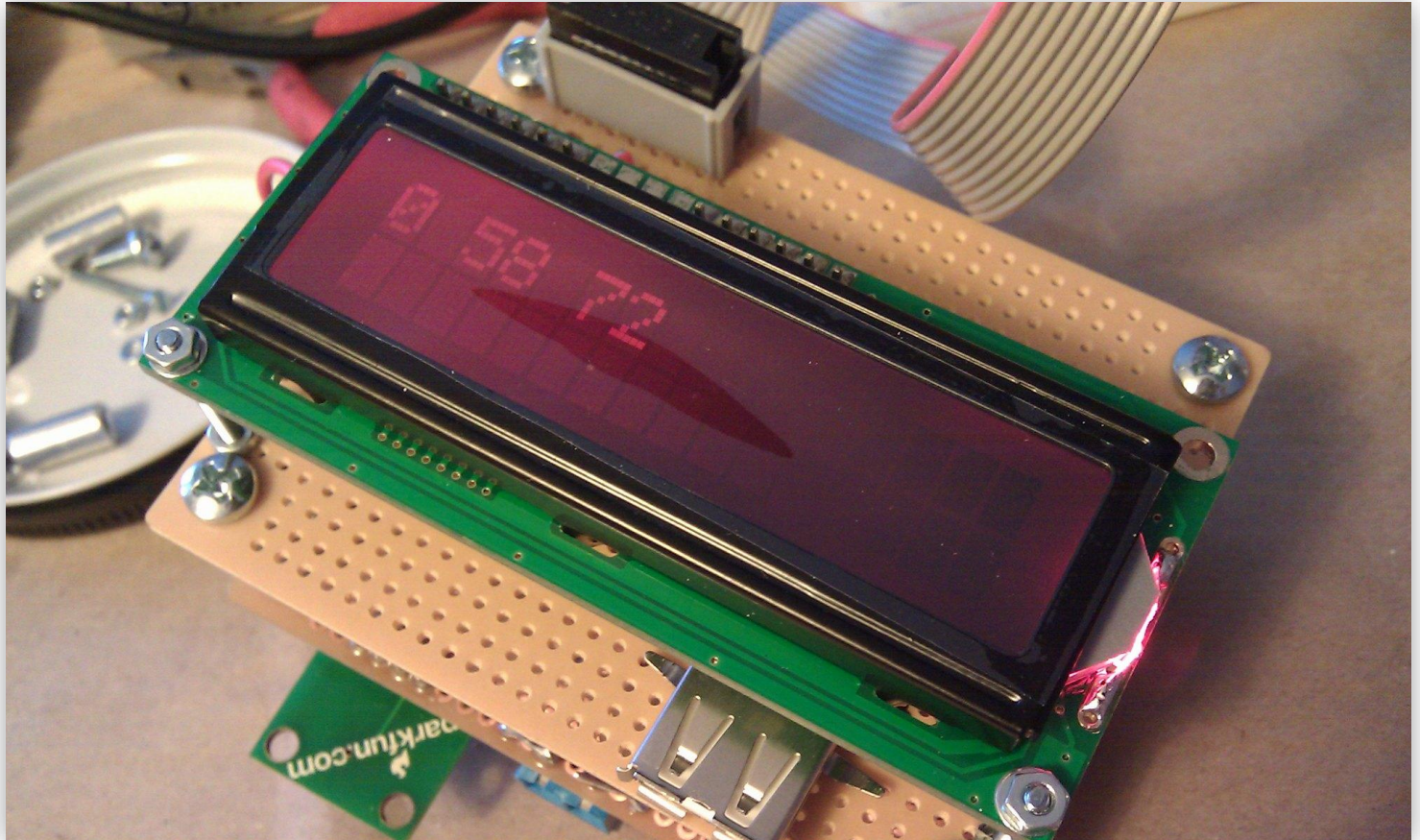
**A system is a group of interacting or interrelated elements that act according to a set of rules to form a unified whole**

<https://en.wikipedia.org/wiki/System>

# // Internal states

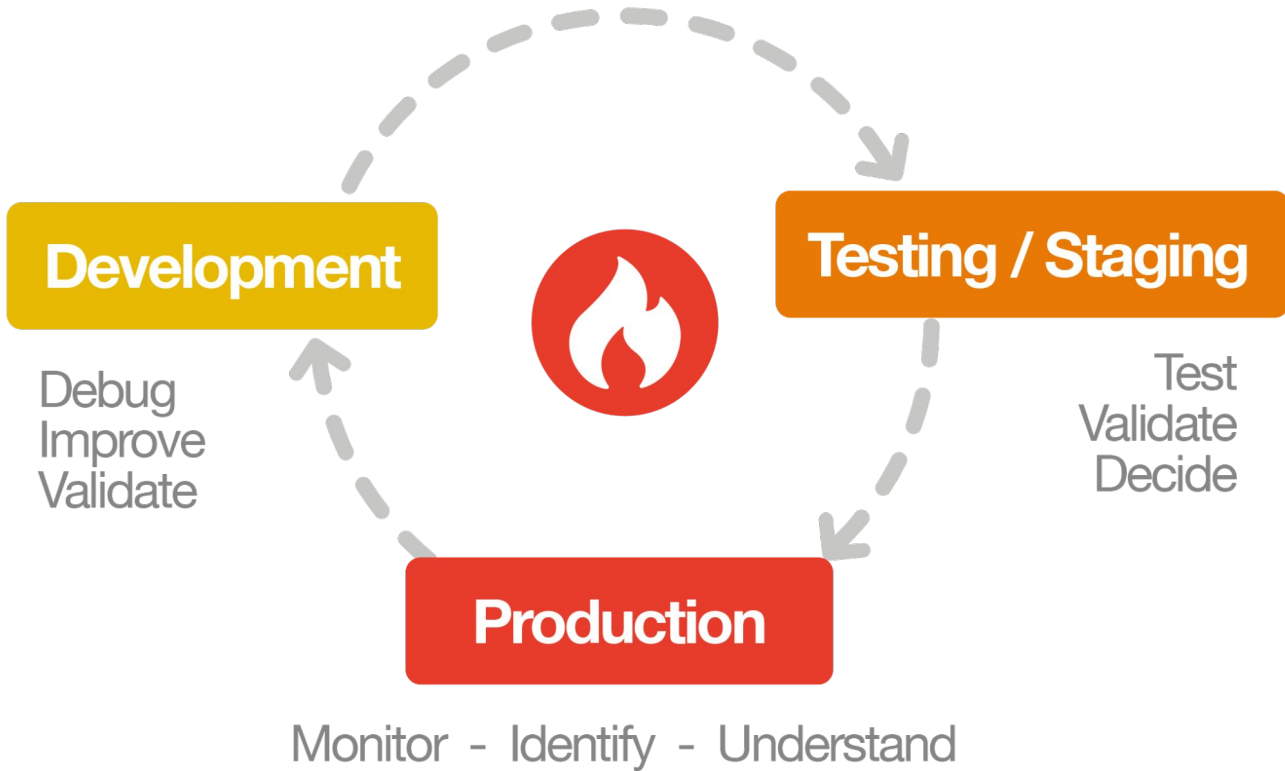


# // External output

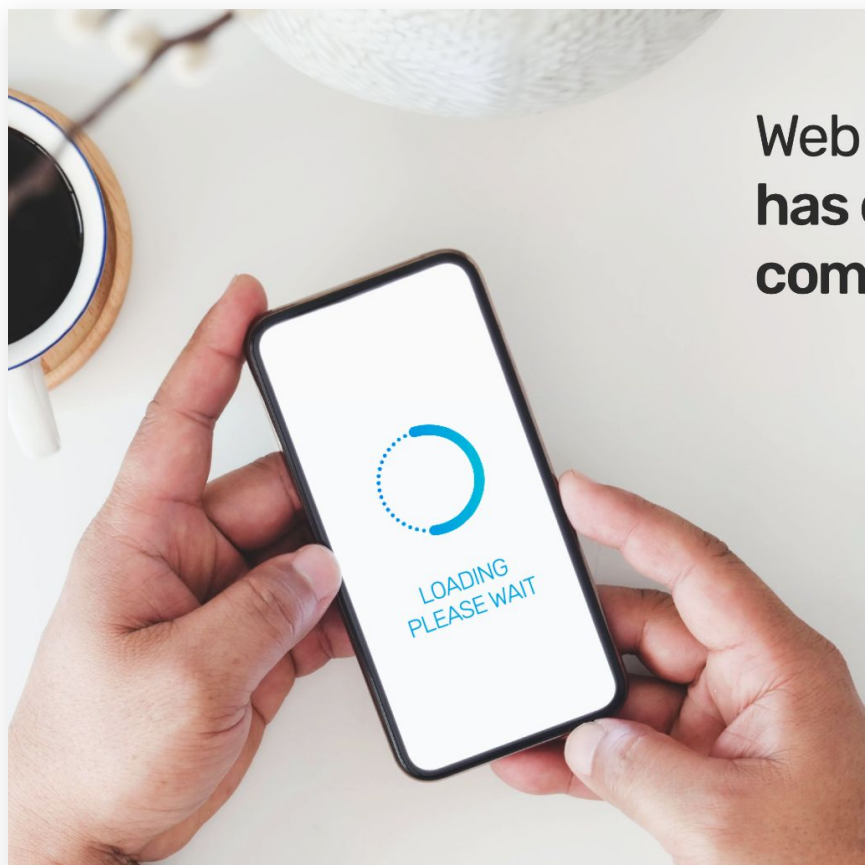


# **// Why observability?**

**Learn from the states of your application**







## Web applications performance has direct consequences on a company's revenue.

53%

of users abandon a site that takes more than **3 seconds** to load.

Improving a page load time from **2.8s to 2.7s** (100ms) can increase conversion rates by up to

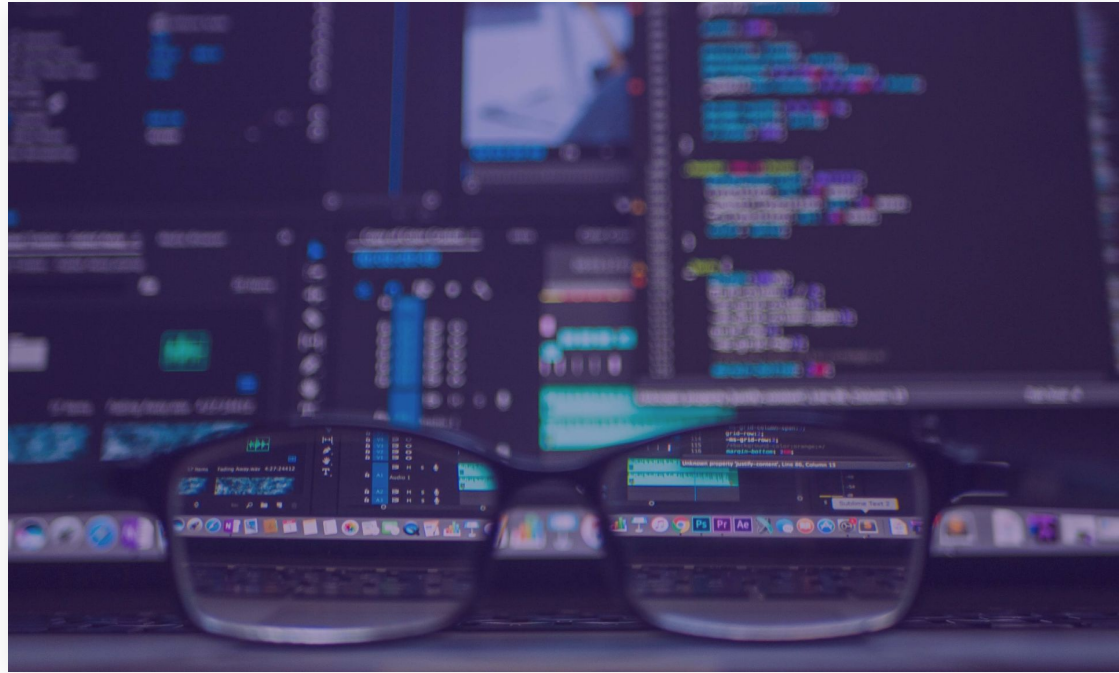
7.1%

# Solving issues in production costs a lot more than solving them in development



# **You cannot improve what you cannot measure.**

**Web developers don't always  
have the right tools to  
understand the root cause of  
their application behavior.**



# **// Observability tools**

**Different tools for different purposes**

# // The blueprints



<https://www.flickr.com/photos/gitarau/4480037343>

# // Symfony insight

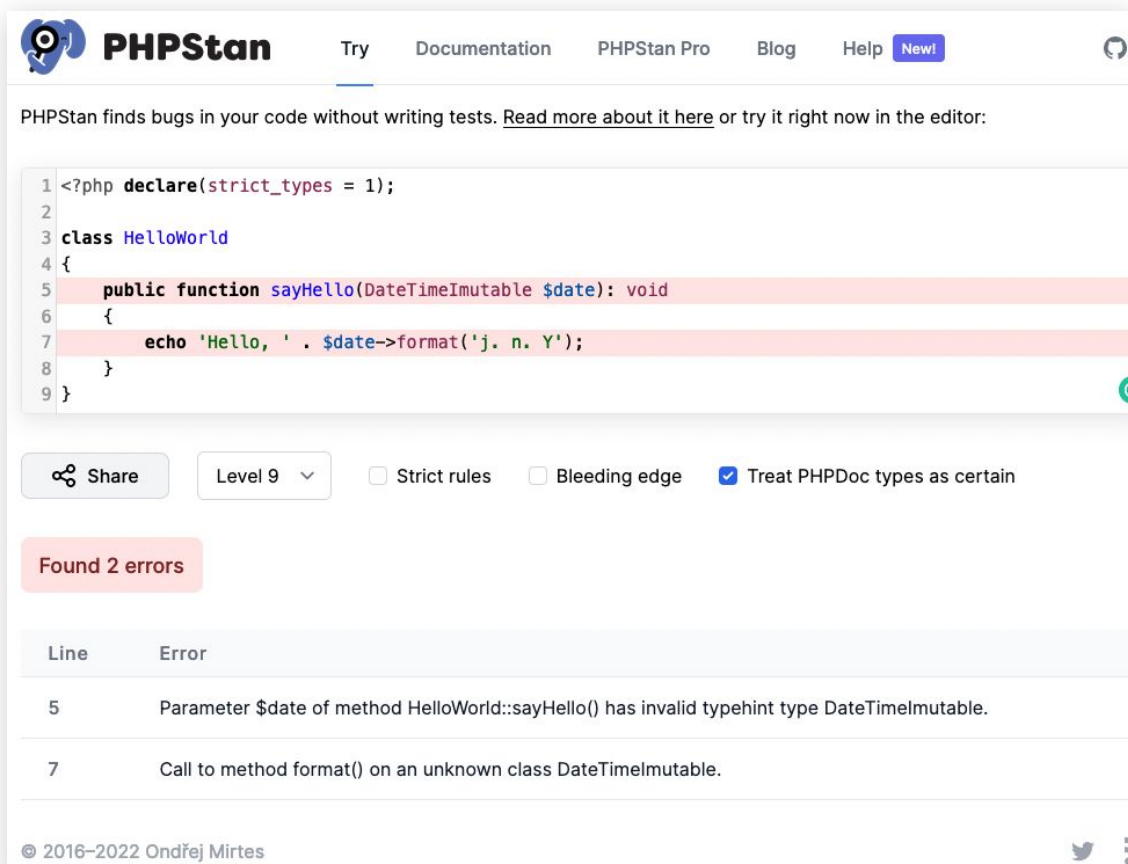
The screenshot displays the Symfony Insight web interface. At the top, it shows the user 'symfonycorp / insight.symfony.com #1398' and the analysis status 'Analyzed an hour ago, duration: 2 minutes'. A green 'Analyze' button is visible. Below this, a green banner states 'Changes: no new suggestions!'. A yellow banner indicates 'SymfonyInsight detected 170 upgrade issues in your project.' A navigation bar shows filters for 'Suggestions (503)', 'Fixed (1)', 'Ignored (9)', and 'Upgrade (170)', along with buttons for 'Executive report', 'Full report', and 'Stats'. The main content area lists several packages with their issue counts and version ranges:

- doctrine/annotations (1)** 1.8 > 2.0 (1 issue)
- doctrine/migrations (143)** 1.8 > 2.0 (143 issues)
- nikic/php-parser (1)** 4.3 > 5.0 (1 issue)
- sonata-project/admin-bundle (3)** 3.49 > 4.0 (3 issues)

The 'sonata-project/admin-bundle' entry is expanded to show a specific issue: 'The missing symfony admin generator'. Below this, a detailed message states: 'SymfonyInsight found 3 issues blocking the upgrade of sonata-project/admin-bundle: The method SonataAdminBundle\Admin\AdminInterface::getTemplate is deprecated but you override it'. A code snippet shows the deprecated method call in a PHP file, with the line highlighted in pink:

```
126.         ];  
127.     }  
128.  
129.     public function getTemplate($name)  
130.     {  
131.         switch ($name) {  
132.             case 'edit':
```

# // PHPStan



The screenshot shows the PHPStan website interface. At the top, there is a navigation bar with the PHPStan logo, the text "PHPStan", and links for "Try", "Documentation", "PHPStan Pro", "Blog", and "Help" (with a "New!" badge). Below the navigation bar, a message states: "PHPStan finds bugs in your code without writing tests. [Read more about it here](#) or try it right now in the editor:". The main content area features a code editor with the following PHP code:

```
1 <?php declare(strict_types = 1);
2
3 class HelloWorld
4 {
5     public function sayHello(DateTimeImmutable $date): void
6     {
7         echo 'Hello, ' . $date->format('j. n. Y');
8     }
9 }
```

Below the code editor, there are several controls: a "Share" button, a "Level 9" dropdown menu, and three checkboxes: "Strict rules" (unchecked), "Bleeding edge" (unchecked), and "Treat PHPDoc types as certain" (checked). A pink notification box indicates "Found 2 errors". Below this, a table lists the errors:

Line	Error
5	Parameter \$date of method HelloWorld::sayHello() has invalid typehint type DateTimeImmutable.
7	Call to method format() on an unknown class DateTimeImmutable.

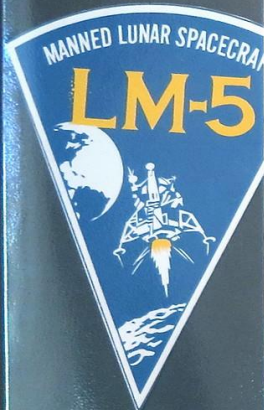
At the bottom of the page, there is a copyright notice: "© 2016–2022 Ondřej Mirtes" and social media icons for Twitter and GitHub.

# // The black box



<https://www.flickr.com/photos/zayzayem/5823329618>





LOG

Page No 58631

Engineer E. DOWSE Project LM-5 Location WS 11 A15  
 Time 7:48 AM TO 8:18 PM Title EPS TEST SUPPORT Date 12-11-68

1. STARTED TROUBLE SHOOTING ON TDR #33 OF 61078 LM 5.
2. DURING THE CONFIGURING OF THE INVERTER SIMULATOR LDW 410 - 8510-1-1 UNIT NUMBER 179 THE REMOTE SENSE SWITCH WAS SWITCHED TO OFF AND THE GPI 50V 40AMP DC CB OPENED AS WELL AS THE GPI ENABLE SWITCH.  
 THE UNIT WAS RECYCLED AND AGAIN THE CB TRIPPED. (FOR THIS RECYCLING THE REMOTE SENSE SW WAS OFF & THE REMOTE VARIABLE SW WAS VARIABLE).
3. THE UNIT WAS AGAIN RECYCLED AFTER A PERIOD OF WAITING ABOUT 30 MIN BUT WHEN THE GPI 50V 40AMP DC CB WAS CLOSED THE DC PS AT THE 8510 INDICATED GREATER THAN 60 AMPS AND AN OUTPUT OF 20VDC. THE GPI 50V 40 AMP DC BREAKER WAS MANUALLY TRIPPED.
5. PIRR # 66288 GENERATED AGAINST LDW 410 - 8510-1-1 INVERTER SIMULATOR.
6. PRE PRODUCTION INVERTERS LSC 390-6-9-2 S/N 121, 120, 119 & 118 ARE IN WAREHOUSE # 6 (ALSO LSC 390-6-7 S/N 109 IS AVAILABLE).
7. GENERATED TIPS 35-900-08 MOD # "D/S BATTERY FEEDER LINE TEST" FEEDER LINES INVALIDATED BY WORK ORDER # 495904 & TIPS 35-900-08 BASIC.
8. RECORDER CHANNELS :



Full Pk to Pk Voltage  
 WAVE TOP  
 100 VOLTS / IN.  
 OR  
 1CM. = 10V

Glitch (VOLT DECAY)  
 1 IN = 2V.  
 OR 20 VOLTS / IN

Bars 6 CURRENT  
 40 AMPS / IN  
 OR  
 1 IN = 4 AMPS

Note: No AC GLITCH DETECTOR ON THE SMALL LIGHT BEAM RECORDER NOW.  
 ON FR 1300 MAG TAPE : BAT 6 CURRENT TIME CODE

LOG

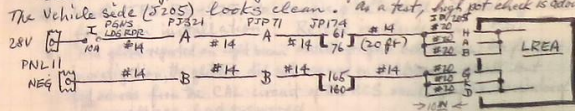
Page No 58594

Engineer E. DOWSE Project LM-5 Location 291:20:00  
 Time 7:48 TO Title 61015 EPS SUPPORT Date 10-17-68

- 291:20:31:90  
 NOTIFIED GPS & EPO THEY NO LONGER HAD TO TAKE CURRENT READINGS HOWEVER ANY HIGH CURRENT EXCURSION SHOULD BE NOTED.
- 291:20:02  
 IRO CHART PAPER SHOWS - COIL GLITCH AND A 1 VOLT DROP ON THE COB BUS. ECS WAS TROUBLE SHOOTING AT THE TIME. (TDR #6 61015) GLITCH OCCURRED JUST WHEN THE SUIT FANS WERE TURNED ON.
- 292:03:51:00  
 RAN TIPS 35-974 AND SUCCESSFULLY RETESTED (+V) (LY) THE DOCKING LIGHTS AFTER INSTALLATION OF DOCKING LIGHTS OVER THEIR ASSOCIATED THERMAL BLANKETS.
- 292:05:25:00  
 CRT PG 05 STANDARD WORDS DISAPPEARED. C/O RECYCLED THEIR PCM CB AND THE PROBLEM CLEARED. VERIFIED WITH THE IRO THAT NO GLITCHES WERE OBSERVED ON THE VEHICLE BUSES DURING THIS PERIOD.

A. Hecht Day Shift 8am - 8pm 10-18-68

1. OCP 61015 IN HOLD. COMM IS trouble shooting.
2. Sald TDR #1 of TIPS 35-752 (POT Interlock shut down)
3. At 1530, the wires in pigtail of LREA, P205, were charred & CB tripped. I did not get a look at the charred wires since there were too many people around LREA and all personnel not immediately involved were ordered to leave. Visually, the damage was confined to the LREA side (P205). The vehicle side (S205) looks clean. As a test, high pot check is advisable.



**// Infrastructure  
metrics**

php App

[Hide metrics](#)

**CPU** ⓘ 0.04CPU / 0.40CPU **11.1%**



**RAM** ⓘ 0.13GB / 0.13GB **105.4%**



**Temporary Disk /tmp** ⓘ 0.27GB / 3.99GB **6.8%**



**Persistent Disk /mnt** ⓘ 1.11GB / 1.91GB **58.4%**



**M** Memcached

[View metrics](#)

**CPU** ⓘ 0.00CPU / 0.25CPU **1.1%**

**RAM** ⓘ 0.05GB / 0.28GB **18.9%**

**Temporary Disk /tmp** ⓘ 0.04GB / 3.99GB **0.9%**

**MySQLdb**

[View metrics](#)

**CPU** ⓘ 0.00CPU / 0.25CPU **1.7%**

**RAM** ⓘ 0.15GB / 0.28GB **53.9%**

**Temporary Disk /tmp** ⓘ 0.04GB / 3.99GB **0.9%**

**Persistent Disk /mnt** ⓘ 0.21GB / 1.91GB **11.1%**

**// Application  
metrics**

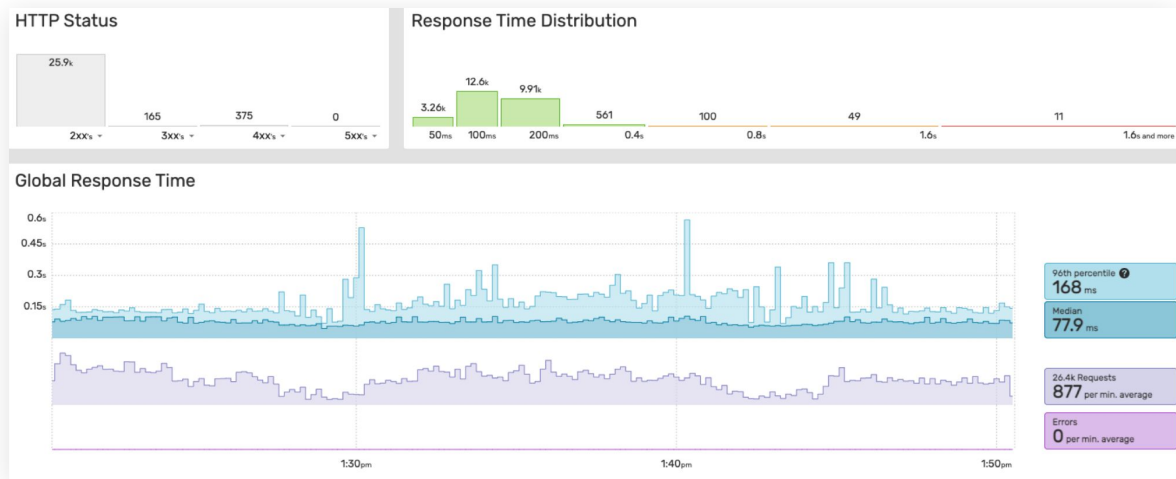
# // Blackfire metrics collection levels

Metrics  
depth



Monitoring  
Traces  
Extended traces  
Profiling

## When and where



# // Blackfire metrics collection levels

Metrics depth



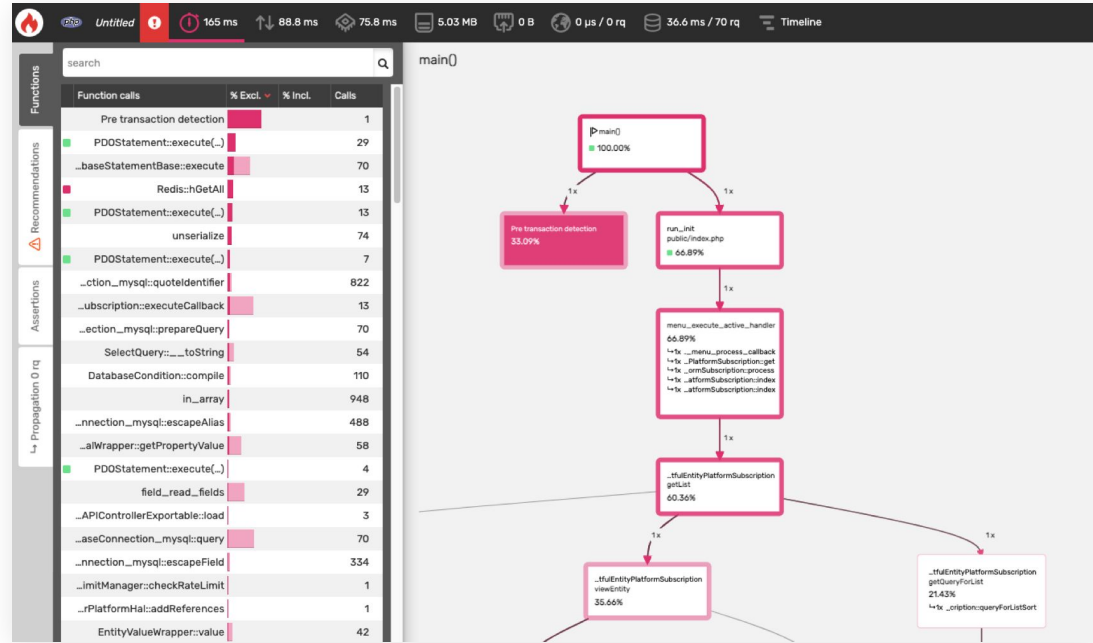
Monitoring

Traces

Extended traces

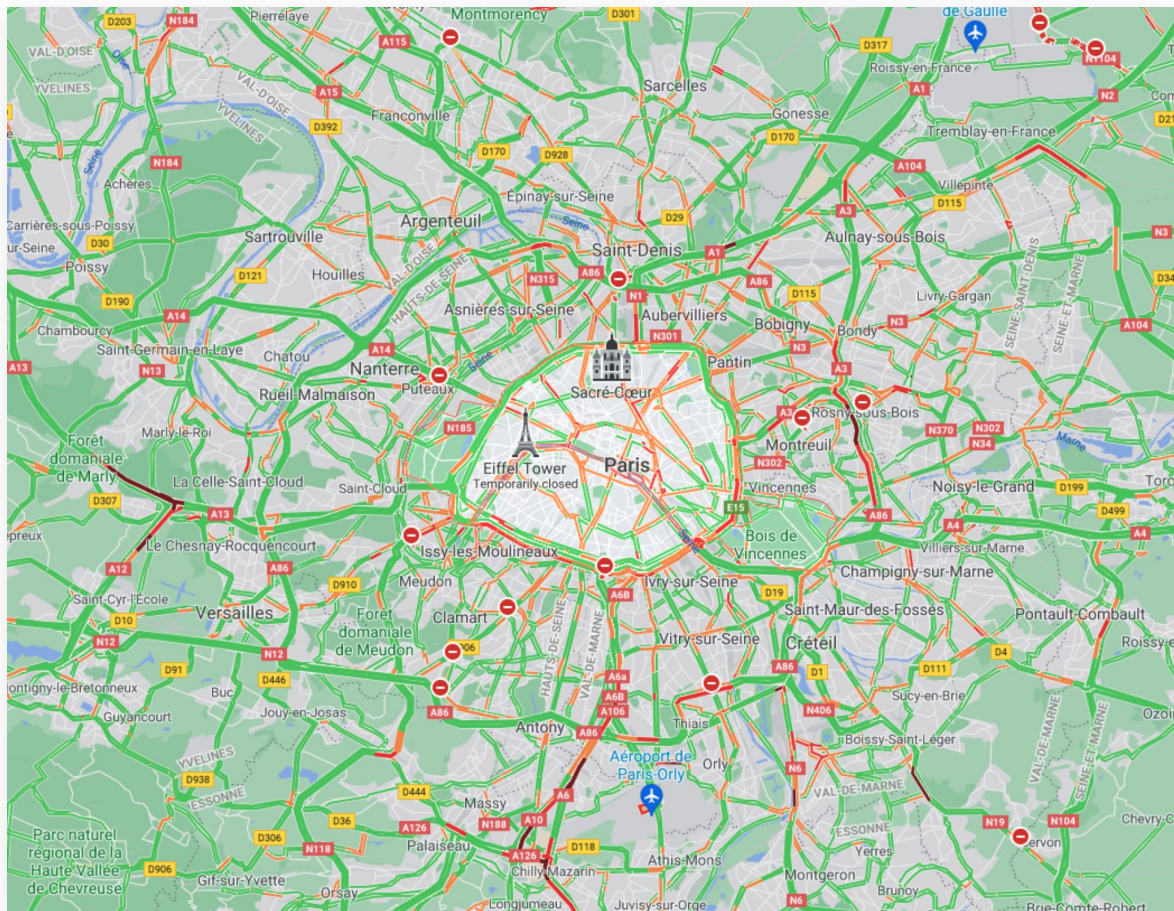
Profiling

## Why



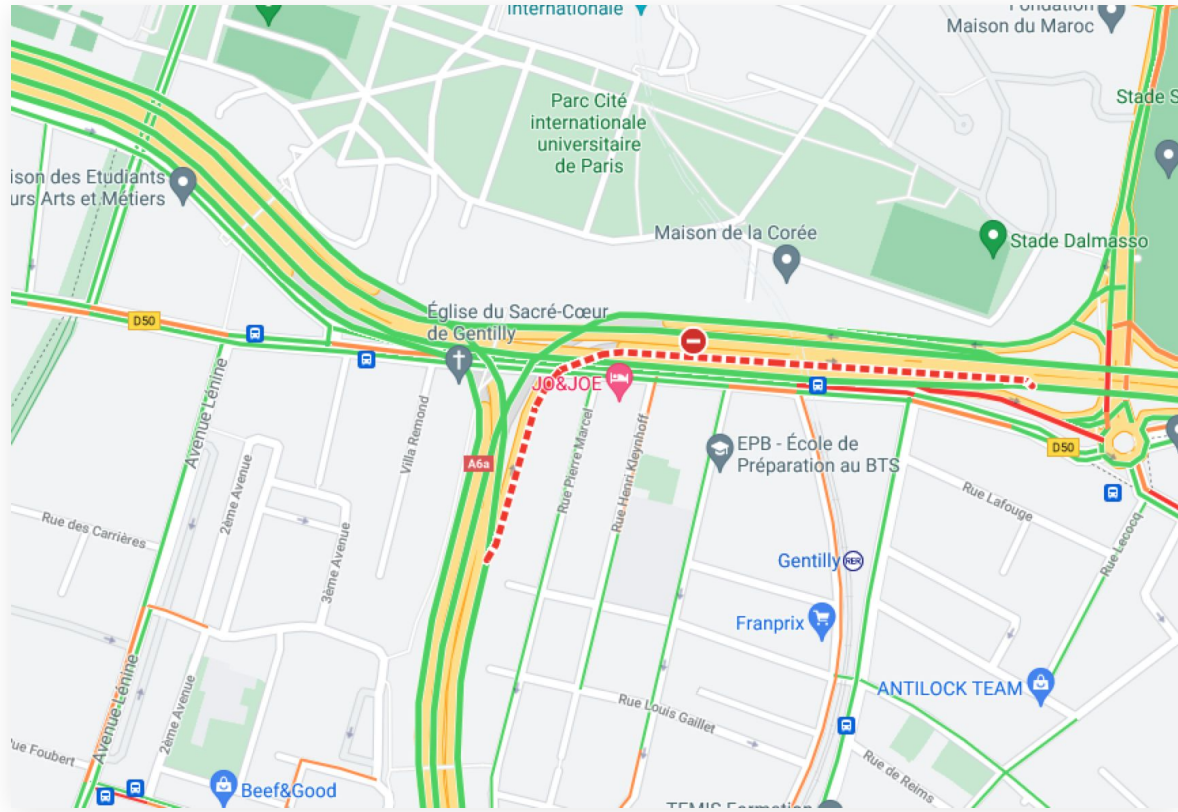
# // Traces

Traffic city scale (live)



# // Extended traces

Traffic city scale (live)



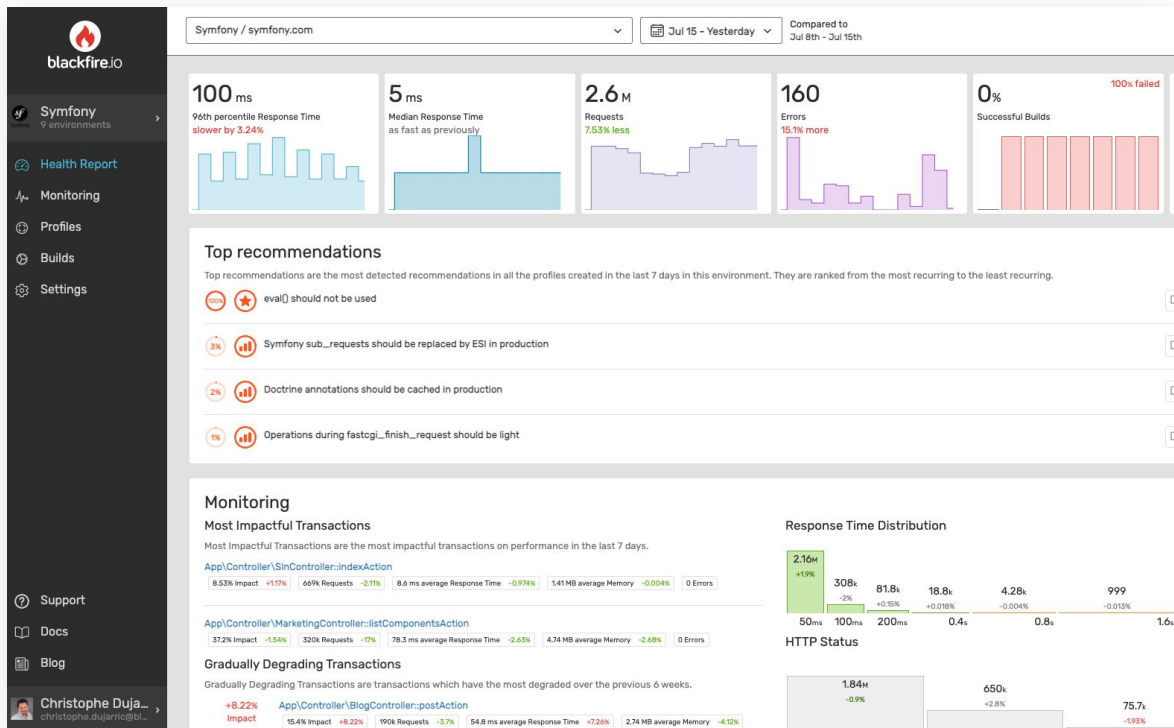


# // Profiles

Detailed road picture with  
advanced insights



# // Actionable performance insights



# Conclusion

Performance & stability matters

# Thank you!

//

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@lolautruche@paille.fr

<https://github.com/lolautruche>